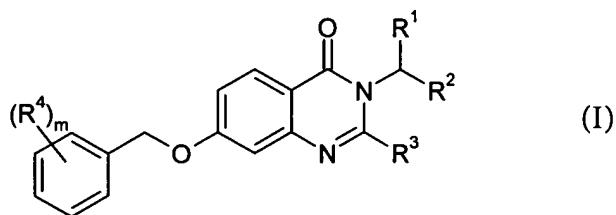


Claims

1. A compound of formula I



wherein

R¹ is -(CH₂)_n-CO-NR⁵R⁶; -(CH₂)_n-COOR⁷; -(CH₂)_n-NR⁵R⁶; -(CH₂)_n-CN; -(CH₂)_n-OR⁸; or phenyl, which is unsubstituted or substituted by one to three substituents selected from halogen and fluoro(C₁-C₆)-alkyl;

R² is hydrogen, halogen or C₁-C₆-alkyl;

R³ is hydrogen, C₁-C₆-alkyl, C₃-C₆-cycloalkyl or benzyl;

R⁴ is halogen, fluoro(C₁-C₆)-alkyl, cyano, C₁-C₆-alkoxy or fluoro(C₁-C₆)-alkoxy;

R⁵ and R⁶ are independently from each other hydrogen or C₁-C₆-alkyl;

R⁷ is hydrogen or C₁-C₆-alkyl;

R⁸ is hydrogen or C₁-C₆-alkyl;

m is 1, 2 or 3; and

n is 0, 1 or 2;

or a pharmaceutically acceptable salt thereof.

2. The compound of formula I according to claim 1 wherein

R¹ is -(CH₂)_n-CO-NR⁵R⁶; -(CH₂)_n-COOR⁷; -(CH₂)_n-NR⁵R⁶; -(CH₂)_n-CN; -(CH₂)_n-OR⁸; or phenyl, which is unsubstituted or substituted by one to three substituents selected from halogen and fluoro(C₁-C₆)-alkyl;

R² is hydrogen or C₁-C₆-alkyl;

R³ is hydrogen, C₁-C₆-alkyl, C₃-C₆-cycloalkyl or benzyl;

R⁴ is halogen, fluoro(C₁-C₆)-alkyl, cyano, C₁-C₆-alkoxy or fluoro(C₁-C₆)-alkoxy;

R⁵ and R⁶ are independently from each other hydrogen or C₁-C₆-alkyl;

R⁷ is hydrogen or C₁-C₆-alkyl;

R⁸ is hydrogen or C₁-C₆-alkyl;
m is 1, 2 or 3; and
n is 0, 1 or 2;

or a pharmaceutically acceptable salt.

3. The compound of formula I according to claim 1 wherein R¹ is -(CH₂)_n-CO-NR⁵R⁶; -(CH₂)_n-COOR⁷; -(CH₂)_n-NR⁵R⁶; -(CH₂)_n-CN; -(CH₂)_n-OR⁸; or phenyl, which is unsubstituted or substituted by one to three substituents selected from halogen and fluoro(C₁-C₆)-alkyl;

R² is halogen or C₁-C₆-alkyl;

R³ is hydrogen, C₁-C₆-alkyl, C₃-C₆-cycloalkyl or benzyl;

R⁴ is halogen, fluoro(C₁-C₆)-alkyl, cyano, C₁-C₆-alkoxy or fluoro(C₁-C₆)-alkoxy;

R⁵ and R⁶ are independently from each other hydrogen or C₁-C₆-alkyl;

R⁷ is hydrogen or C₁-C₆-alkyl;

R⁸ is hydrogen or C₁-C₆-alkyl;

m is 1, 2 or 3; and

n is 0, 1 or 2;

or a pharmaceutically acceptable salt thereof.

4. The compound of formula I according to claim 1 wherein

R¹ is -(CH₂)_n-CO-NR⁵R⁶; -(CH₂)_n-COOR⁷; -(CH₂)_n-NR⁵R⁶; -(CH₂)_n-CN; -(CH₂)_n-OR⁸; or phenyl, which is unsubstituted or substituted by one to three substituents selected from halogen and fluoro(C₁-C₆)-alkyl;

R² is hydrogen, halogen or C₁-C₆-alkyl;

R³ is hydrogen or C₁-C₆-alkyl,

R⁴ is halogen, fluoro(C₁-C₆)-alkyl, cyano, C₁-C₆-alkoxy or fluoro(C₁-C₆)-alkoxy;

R⁵ and R⁶ are independently from each other hydrogen or C₁-C₆-alkyl;

R⁷ is hydrogen or C₁-C₆-alkyl;

R⁸ is hydrogen or C₁-C₆-alkyl;

m is 1, 2 or 3; and

n is 0, 1 or 2;

or a pharmaceutically acceptable salt thereof.

5. The compound of formula I according to claim 1 wherein

R¹ is -(CH₂)_n-CO-NR⁵R⁶; -(CH₂)_n-COOR⁷; -(CH₂)_n-NR⁵R⁶; -(CH₂)_n-CN; -(CH₂)_n-OR⁸; or phenyl, which is unsubstituted or substituted by one to three substituents selected from halogen and fluoro(C₁-C₆)-alkyl;

R² is hydrogen, halogen or C₁-C₆-alkyl;

R³ is C₃-C₆-cycloalkyl or benzyl;

R⁴ is halogen, fluoro(C₁-C₆)-alkyl, cyano, C₁-C₆-alkoxy or fluoro(C₁-C₆)-alkoxy;

R⁵ and R⁶ are independently from each other hydrogen or C₁-C₆-alkyl;

R⁷ is hydrogen or C₁-C₆-alkyl;

R⁸ is hydrogen or C₁-C₆-alkyl;

m is 1, 2 or 3; and

n is 0, 1 or 2;

or a pharmaceutically acceptable salt thereof.

6. The compound of formula I according to claim 1 wherein

R¹ is -(CH₂)_n-CO-NH₂; -(CH₂)_n-COOR⁷; -(CH₂)_n-NH₂; -(CH₂)_n-CN; -(CH₂)_n-OR⁸; or phenyl, which is unsubstituted or substituted by one to three substituents selected from halogen and fluoro(C₁-C₆)-alkyl;

R² is hydrogen, halogen or C₁-C₆-alkyl;

R³ is hydrogen, C₁-C₆-alkyl, C₃-C₆-cycloalkyl or benzyl;

R⁴ is halogen, fluoro(C₁-C₆)-alkyl, cyano, C₁-C₆-alkoxy or fluoro(C₁-C₆)-alkoxy;

R⁵ and R⁶ are independently from each other hydrogen or C₁-C₆-alkyl;

R⁷ is hydrogen or C₁-C₆-alkyl;

R⁸ is hydrogen or C₁-C₆-alkyl;

m is 1, 2 or 3; and

n is 0, 1 or 2;

or a pharmaceutically acceptable salt thereof.

7. The compound of formula I according to claim 1 wherein

R¹ is -(CH₂)_n-CO-NR⁵R⁶; -(CH₂)_n-COOR⁷; -(CH₂)_n-NR⁵R⁶; -(CH₂)_n-CN; -(CH₂)_n-OR⁸; or phenyl, which is unsubstituted or substituted by one to three substituents selected from halogen and fluoro(C₁-C₆)-alkyl;

R² is hydrogen, halogen or C₁-C₆-alkyl;

R³ is hydrogen, C₁-C₆-alkyl, C₃-C₆-cycloalkyl or benzyl;
R⁴ is halogen, fluoro(C₁-C₆)-alkyl;
R⁵ and R⁶ are independently from each other hydrogen or C₁-C₆-alkyl;
R⁷ is hydrogen or C₁-C₆-alkyl;
R⁸ is hydrogen or C₁-C₆-alkyl;
m is 1, 2 or 3; and
n is 0, 1 or 2;
or a pharmaceutically acceptable salt thereof.

8. The compound of formula I according to claim 1 wherein
R¹ is -(CH₂)_n-CO-NR⁵R⁶; -(CH₂)_n-COOR⁷; -(CH₂)_n-NR⁵R⁶; -(CH₂)_n-CN; -(CH₂)_n-OR⁸; or phenyl, which is unsubstituted or substituted by one to three substituents selected from halogen and fluoro(C₁-C₆)-alkyl;
R² is hydrogen, halogen or C₁-C₆-alkyl;
R³ is hydrogen, C₁-C₆-alkyl, C₃-C₆-cycloalkyl or benzyl;
R⁴ is C₁-C₆-alkoxy or fluoro(C₁-C₆)-alkoxy;
R⁵ and R⁶ are independently from each other hydrogen or C₁-C₆-alkyl;
R⁷ is hydrogen or C₁-C₆-alkyl;
R⁸ is hydrogen or C₁-C₆-alkyl;
m is 1, 2 or 3; and
n is 0, 1 or 2;
or a pharmaceutically acceptable salt thereof.

9. The compound of formula I according to claim 1 wherein R¹ is -(CH₂)_n-CO-NR⁵R⁶.

10. The compound of formula I according to claim 1 wherein R¹ is -(CH₂)_n-COOR⁷.

11. The compound of formula I according to claim 1 wherein R¹ is -(CH₂)_n-NR⁵R⁶.

12. The compound of formula I according to claim 1 wherein R¹ is -(CH₂)_n-CN.

13. The compound of formula I according to claim 1 wherein R¹ is -(CH₂)_n-OR⁸.

14. The compound of formula I according to claim 1 wherein R¹ is phenyl, which is unsubstituted or substituted by one to three substituents selected from halogen and fluoro(C₁-C₆)-alkyl.

15. The compound of formula I according to claim 14 wherein said phenyl is substituted by halogen.

16. The compound of formula I according to claim 1 wherein R² is hydrogen.

17. The compound of formula I according to claim 1 wherein R² is halogen.

18. The compound of formula I according to claim 1 wherein R² is C₁-C₆-alkyl.

19. The compound of formula I according to claim 1 wherein R³ is hydrogen.

20. The compound of formula I according to claim 1 wherein R³ is C₁-C₆-alkyl.

21. The compound of formula I according to claim 1 wherein R³ is C₃-C₆-cycloalkyl.

22. The compound of formula I according to claim 1 wherein R³ is benzyl.

23. The compound of formula I according to claim 1 wherein R³ is hydrogen, C₁-C₆-alkyl, C₃-C₆-cycloalkyl or benzyl.

24. The compound of formula I according to claim 1 wherein R⁴ is halogen or fluoro(C₁-C₆)-alkyl.

25. The compound of formula I according to claim 1 wherein R⁴ is cyano.

26. The compound of formula I according to claim 1 wherein R⁴ is C₁-C₆-alkoxy or fluoro(C₁-C₆)-alkoxy.

27. The compound of formula I according to claim 1 wherein R⁷ is hydrogen.

28. The compound of formula I according to claim 1 wherein R⁷ is (C₁-C₆)-alkyl.

29. A compound of formula I according to claim 1 selected from 2-[7-(3-fluoro-benzyloxy)-4-oxo-4H-quinazolin-3-yl]-acetamide, 2-[7-(3-fluoro-benzyloxy)-4-oxo-4H-quinazolin-3-yl]-propionamide, 2-[7-(4-fluoro-benzyloxy)-4-oxo-4H-quinazolin-3-yl]-acetamide, 2-[7-(4-fluoro-benzyloxy)-4-oxo-4H-quinazolin-3-yl]-propionamide, 2-[7-(3-fluoro-benzyloxy)-2-methyl-4-oxo-4H-quinazolin-3-yl]-acetamide, and 2-[2-cyclopropyl-7-(3-fluoro-benzyloxy)-4-oxo-4H-quinazolin-3-yl]-acetamide.

30. A compound of formula I according to claim 1 selected from 7-(3-fluoro-benzyloxy)-3-(2-methoxy-ethyl)-3H-quinazolin-4-one, 7-(4-fluoro-benzyloxy)-3-(2-methoxy-ethyl)-3H-quinazolin-4-one, 7-(3-fluoro-benzyloxy)-3-(2-methoxy-ethyl)-2-methyl-3H-quinazolin-4-one, 3-(2-amino-ethyl)-7-(3-fluoro-benzyloxy)-3H-quinazolin-4-one 1:2 hydrochloride, 3-(3-amino-propyl)-7-(3-fluoro-benzyloxy)-3H-quinazolin-4-one 1:2 hydrochloride, 3-(2-amino-ethyl)-7-(4-fluoro-benzyloxy)-3H-quinazolin-4-one 1:1 hydrochloride, and 2-[7-(3-fluoro-benzyloxy)-2-methyl-4-oxo-4H-quinazolin-3-yl]-ethyl-ammonium chloride.

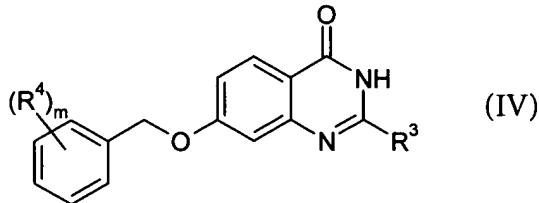
31. A compound of formula I according to claim 1 selected from [7-(3-fluoro-benzyloxy)-4-oxo-4H-quinazolin-3-yl]-acetic acid ethyl ester; fluoro-[7-(3-fluoro-benzyloxy)-4-oxo-4H-quinazolin-3-yl]-acetic acid ethyl ester; 2-[7-(3-fluoro-benzyloxy)-4-oxo-4H-quinazolin-3-yl]-propionic acid ethyl ester;

[7-(3-fluoro-benzyloxy)-4-oxo-4H-quinazolin-3-yl]-acetic acid tert-butyl ester;
2-[7-(3-fluoro-benzyloxy)-4-oxo-4H-quinazolin-3-yl]-propionic acid tert-butyl ester;
[7-(4-fluoro-benzyloxy)-4-oxo-4H-quinazolin-3-yl]-acetic acid ethyl ester; and
2-[7-(4-fluoro-benzyloxy)-4-oxo-4H-quinazolin-3-yl]-propionic acid ethyl ester.

32. A compound of formula I according to claim 1 selected from
3-(3-fluoro-benzyl)-7-(3-fluoro-benzyloxy)-3H-quinazolin-4-one;
3-[7-(4-fluoro-benzyloxy)-4-oxo-4H-quinazolin-3-yl]-propionamide;
2-[7-(3-fluoro-benzyloxy)-2-isopropyl-4-oxo-4H-quinazolin-3-yl]-acetamide;
[7-(3-fluoro-benzyloxy)-2-isopropyl-4-oxo-4H-quinazolin-3-yl]-acetonitrile;
2-cyclopropyl-7-(3-fluoro-benzyloxy)-3-(2-methoxy-ethyl)-3H-quinazolin-4-one;
[2-cyclopropyl-7-(3-fluoro-benzyloxy)-4-oxo-4H-quinazolin-3-yl]-acetic acid methyl ester; and
2-[2-benzyl-7-(3-fluoro-benzyloxy)-4-oxo-4H-quinazolin-3-yl]-acetamide.

33. A pharmaceutical composition comprising a compound of formula I according to claim 1 and a pharmaceutically acceptable carrier.

34. A process for the preparation of a compound of formula I according to claim 1 comprising reacting a compound of formula IV



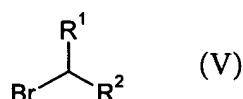
wherein

R³ is hydrogen, C₁-C₆-alkyl, C₃-C₆-cycloalkyl or benzyl;

R⁴ is halogen, fluoro(C₁-C₆)-alkyl, cyano, C₁-C₆-alkoxy or fluoro(C₁-C₆)-alkoxy; and

m is 1, 2 or 3

with a compound of formula V



wherein

R¹ is -(CH₂)_n-CO-NR⁵R⁶; -(CH₂)_n-COOR⁷; -(CH₂)_n-NR⁵R⁶; -(CH₂)_n-CN; -(CH₂)_n-OR⁸; or phenyl, which is unsubstituted or substituted by one to three substituents selected from halogen and fluoro(C₁-C₆)-alkyl;

R² is hydrogen, halogen or C₁-C₆-alkyl;

R⁵ and R⁶ are independently from each other hydrogen or C₁-C₆-alkyl;

R⁷ is hydrogen or C₁-C₆-alkyl;

R⁸ is hydrogen or C₁-C₆-alkyl; and

n is 0, 1 or 2.

35. A method of treating Alzheimer's disease in an individual comprising administering to the individual an effective amount of a compound according to claim 1.

36. A method of treating senile dementia in an individual comprising administering to the individual an effective amount of a compound according to claim 1.

37. A method of treating Parkinson's disease in an individual comprising administering to the individual an effective amount of a compound according to claim 1.